The Sukotyro: On the Extinction of a Nonexistent Animal

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ABSTRACT: In an essay on cryptids, those elusive animals pursued by cryptozoologists, Michael Shermer warns that "anecdotes alone do not make a science." Although his point is well taken, he is off the mark from the perspective of historical context. Anecdotes may not make a science directly, but they certainly do make culture; and culture inevitably does make science. A case in point is the Sukotyro, a creature "discovered" by the Dutch explorer Johan Nieuhof in 1670, and described hundreds of times in subsequent natural histories. The resilience of the image from its originary moment in Nieuhof's remarkable *Voyages and Travels* in the late seventeenth century to references in the mid-nineteenth century is a useful reminder of the power of representation in natural history. As an anecdotal creature, the sukotyro may not have belonged to "real" science, but as I suggest, it has everything to do with the making of science and scientific culture. Like it or not, the Sukotyro, though not widely known today, is firmly lodged in the annals of science no less than Dürer's fanciful (yet oddly archetypical) Rhinoceros. With that in mind, we must look at the sukotyro itself as a natural paradox: a nonexistent animal, which cannot go extinct.

In an essay on cryptids,[1] those elusive animals and humanoids pursued by cryptozoologists, the perennial skeptic Michael Shermer

1. "Cryptid," a relatively new term, is defined by the *Oxford English Dictionary* as "[a]n animal whose existence or survival to the present day is disputed or unsubstantiated; any animal of interest to a cryptozoologist." The term dates back to 1983, according to the *OED*, as a less controversial term than "monster." *OED Online*, s.v. "cryptid (n.)," September 2019, https://www.oed.com/view/Entry/267306?redirectedFrom=Cryptid.

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makes the very sensible argument that "purported sightings of Bigfoot, Nessie, and Ogopogo[2] fire our imaginations." But he also warns his readers (citing psychologist Frank J. Sulloway) that "anecdotes alone do not make a science."[3] Shermer's point is reasonable, but from the perspective of historical context, he is well off the mark. Zoological anecdotes may not make a science directly, but they certainly do make culture, and culture ineluctably circles back around to shape the knowledge that we call science. Examples of this cycle abound, but every now and then historical curiosities call attention to themselves in a way that prompts, if not a clearer understanding of the intersections of science and culture, then a more complex set of engagements between the two than we could have anticipated. In this essay, I look at a historical curiosity called the Sukotyro, a bull-like animal first reported in the mid-seventeenth century, in an effort to understand the problematic status of animals in the context of how creatures are emblematized, represented, and described.

Many animals of dubious origin are lumped together in that all too easily dismissed category that Shermer (and others) call "cryptids." But what do we ignore when we dismiss the so-called animals of imagination as animals not worth thinking about through the lens of knowledge? The debunking of such creatures is a deceptively—and misguidedly—easy task when addressing "the unusual," as is demonstrated by the respected science writer Daniel Loxton and the renowned palaeontologist Donald R. Prothero.[4] The authors require four hundred pages to retrace the deception and trickery behind creatures like Nessie, the Yeti, and the Sasquatch, bringing to bear an emphatic argument for scientific evidence to justify the outrageous claims of cryptozoologists. Who, among the readers of this academic book, published by the distinguished Columbia University Press, could or would disagree that hoaxes are at the bottom of all Yeti and Bigfoot sightings? But Loxton and Prothero consistently miss the point, and throughout their supposed exposé, they never turn their attention to the resonance of these debunked creatures. The Yeti and the Sasquatch live so vividly in our imaginations, that they are also—time and again—realized materially in culture. The

2. "Ogopogo" is the name given to a large creature, called N'ha-A-Itk in the Salish language, that is purported to live in British Columbia's Lake Okanagan. See Benjamin Radford and Joe Nickell, *Lake Monster Mysteries: Investigating the World's Most Elusive Creatures* (Lexington: University of Kentucky Press, 2006), pp. 121–130.

3. Michael Shermer, "Show Me the Body," *Scientific American* 288:5 (2003): 37, at p. 37.

4. Daniel Loxton, Donald R. Prothero, and Michael Shermer, *Abominable Science!: Origins of the Yeti, Nessie, and Other Famous Cryptids* (New York: Columbia University Press, 2015), p. 28.

Yeti is ever present as a line of camping gear products, or as audio devices, or as bicycles, and the Sasquatch (Bigfoot) has been a staple character in advertising, as well as in hundreds of products, or most notably as a featured character in *Star Wars*, one of the most popular movie franchises of all time. Whether a Wookiee "smells as sweet" as a Sasquatch, it is nevertheless the same creature by another name. If the Wookiee has survived, even though only in the realm of cinematic fiction, it has done so because—like its frontier counterpart, the Sasquatch—it has meaning, resonance, and appeal. None of these qualities can or should be ignored as we contemplate the representation of animals.

In short, even though we recognize that marvelous and wondrous depictions of animals have occupied human attention throughout recorded history, it is not merely enough to let these phenomena pass as mere curiosities. As Boria Sax argues persuasively in *Imaginary Animals*, "[A]ll imaginary animals, to some degree all animals, are ultimately both monsters and wonders, which assist us by deflecting and absorbing our uncertainties."[5] The work of Vladimir Propp, Paul Veyne, as well as Lorraine Daston and Katherine Park have all suggested that folklore and myth must be recognized as social and cultural phenomena. If "real" animals, as Levi-Strauss posited, are "good to think [with],"[6] how much more potent are imagined creatures?

What Is a Sukotyro?

For over two decades, I have been "thinking with" a creature called the sukotyro,[7] introduced to the world by the Dutch explorer Johan Nieuhof[8] in his *Voyages & Travels to the East Indies 1653–1670*.[9] Descriptions and illustrations of the creature are invariably copied from previous sources and reappeared (with remarkable frequency) in compendia of natural history as well as encyclopedias well into the early nineteenth century. I accepted the sukotyro as a kind of personal hobbyhorse, but while conducting research on more con-

5. Boria Sax, *Imaginary Animals: The Monstrous, the Wondrous and the Human* (London: Reaktion, 2013), p. 252.

6. Claude Levi-Strauss, *Totemism*, trans. Rodney Needham (Harmondsworth: Penguin, 1973), p. 162.

7. The origin of the name remains a mystery.

8. I will use the common and convenient spelling of "Johan Nieuhof," although variants include Johannes Nieuhoff and John Nieuhoff.

9. First published in English in 1703 by the brothers Awnsham and John Churchill, of London.

ventional matters at the University of Edinburgh, I was fortunate enough to meet David Heppell, the late malacologist, who, I found, was also preoccupied with the sukotyro.[10] Despite our shared fascination with the animal, neither of us ever came to any conclusions regarding the sukotyro; but it was also a subject that simply would not go away. We contemplated the factors that brought the sukotyro into existence, and the circumstances that eventually doomed it to extinction or, at least, rendered it a mere historical curiosity, but made little progress. But the questions we posed about the animal's origins and its eventual disappearance have survived to form a starting point for this essay. The sukotyro (fig. 1) is the inspirational beginning for this essay, although I hope to render it meaningful by addressing the very concepts of existence, extinction, and representation in the realm of natural history.

But first, to give the creature its due, there is a basic question that needs to be asked: what exactly is a sukotyro? According to Nieuhof, its discoverer, the animal is

> [a] quadruped of a very singular shape. Its size is that of a large ox; the snout like that of a hog; the ears round and rough; and the tail thick and bushy. The eyes are placed upright in the head, quite differently from those of other quadrupeds. On each side the head, stand the horns, or rather teeth, not quite so thick as those of an elephant. This animal feeds upon herbage, and is but seldom taken.[11]

"Seldom taken" is surely an understatement since, with a single exception, no artifacts have ever been claimed to have come from a sukotyro. But even more to the point: was it ever actually observed? And what if it was not "directly" observed, but produced from second-hand sources, does that count as a sighting? The creature is given perhaps the most prominent position in the book's frontispiece (fig. 2), suggesting that Nieuhof accorded it great importance, even in the wild mélange of images on that page. Given that we do not know what Nieuhof (or his collaborating artist) actually observed, the question of the reliability of the representation of the animal may not really be worth asking as much as what value the sukotyro had in his account of the natural history of Sumatra.

Nieuhof's description of the sukotyro is brief, but he neverthe-

10. For a remembrance of David Heppell, see Peter Dance's eulogium in the *Journal of Conchology* 38 (2004): 466–473.

11. Johan Nieuhof, *Voyages and Travels into Brasil and the East-Indies: Containing an Exact Description of the Dutch Brasil, and Divers Parts of the East-Indies* (London: Awnsham and John Churchill, 1732), p. 318.

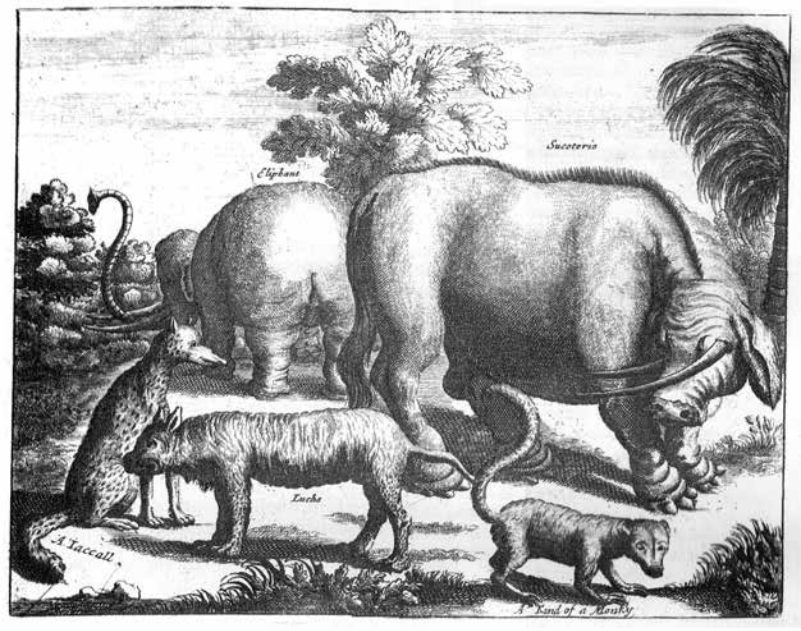

Figure 1. The sukotyro (foreground right) on the title page of Awnsham and Churchill's edition of his *Voyages and Travels*. The image includes an "eliphant," an "Iaccall"—probably a Dhole, or Asiatic wild dog, a *luchs* (lynx in German), which is probably the marbled cat (*Pardofelis marmorata*), and a "kind of monkey," probably the Northern Sumatran leaf monkey (*Presbytis thomasi*).

less features two illustrations of the sukotyro in his text, and clearly wanted his record of discovery remembered for posterity.[12] The visual strategy of their presentation is an example of what art historian Janice Neri, in her compelling study *The Insect and the Image*, calls "specimen logic." The sukotyro, like Neri's insects, functions as both subject and object and thus is not only a unique organism in its own right but also a new entrée "to a strange and fascinating new world."[13] The newness of the sukotyro was significant not only as an emblem of a strange and new world, but as a signal that this world had been discovered, identified, and ultimately claimed.

12. The etchings in the text, according to Marcia Reed and Paola Demattè, seem to be "based on the author's travel diary and sketches of the topography, principal cities and buildings, people, animals, plants and mineral resources that he encountered." *China on Paper: European and Chinese Works from the Late Sixteenth to the Early Nineteenth Century* (Los Angeles: Getty Research Institute, 2007), p. 142.

13. Janice Neri, *The Insect and the Image: Visualizing Nature in Early Modern Europe, 1500–1700* (Minneapolis: University of Minnesota Press, 2011), p. xi.

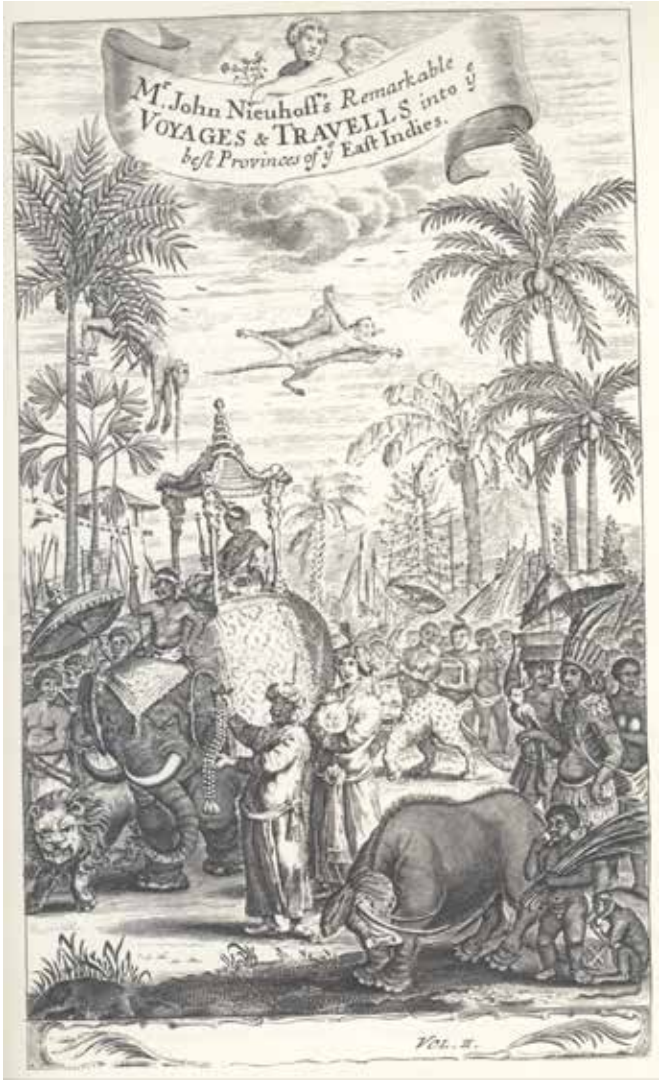

Figure 2. The frontispiece of *Voyages and Travels* displaying the sukotyro prominently.

Nieuhof was a well-placed officer in the Dutch East India Company whose life was surely consumed primarily by administrative duties, which included staking a claim for colonial ownership and authority through his travel narratives. Description and representation are, of course, important knowledge claims that simultaneously

celebrate and possess the subject (and often the country in which it lives). And that possession is lightly but emphatically underscored by all of Nieuhof's images. Amid the etchings of luxurious landscape, fruits, animals, and natives that all reflect well on the wisdom of the Dutch East India Company, there are also indications that a rigorous authority is part and parcel of the scientific curiosity of the Company. On the margins of the expansive aerial view of India's port town of Pulicat,[14] for example, we can see natives hanging from the gallows and oppressed by a peculiar instrument of torture. These marginal details are a less-than-subtle reminder of a new order that has been imposed by the Dutch in an otherwise idyllic setting.

But as sobering as these reminders are, Nieuhof's ostensible purpose in his work is to describe and document the novelty of the people, the cultures, and the animals he encountered.[15] The idea of novelty in the seventeenth century, especially with regard to animals, did not countenance any hint of the monstrous or the fantastic. Thus, the sukotyro is not represented as a freak of nature, but rather appears plausible and credible as an animal that fits nicely—if not neatly—into the taxonomic categories that already existed for quadrupeds in works such as Gessner's *Historiae Animalium*[16] and later in Ulisse Aldrovandi's *Quadrupedum omnium bisulcorum historia*.[17] In general form and structure, the sukotyro was—taxonomically—a creature that resisted the fantastic and imaginary animal qualities that were possible, using Peter Mason's useful formulation, "before disenchantment."[18] In fact, Nieuhof resists enchantment entirely; none of the creatures he describes—though sometimes bizarre—challenge zoological credulity. To bolster his own authority, Nieuhof adopted a rhetorical technique, as historian Dawn Odell notes about Nieuhof's *Travels in China*, of referring to the "wondrous sites of Asia" recounted by previous travelers, "only to delete them in the next sentence by claiming that such things do not in fact

14. Pulicat ("The City of Pellacata with its Castle") can be found in Nieuhof, *Voyages and Travels* (above, n. 11), pp. 212 and 213.

15. Johan Koppenol describes the Dutch fascination with animals in the Renaissance in his essay, "Noah's Ark Disembarked in Holland: Animals In Dutch Poetry, 1500–1700," in *Early Modern Zoology: The Construction of Animals in Science, Literature and the Visual Arts*, ed. Karl A. E. Enenkel and Paul J. Smith (Leiden: Brill, 2007), vol. 2, pp. 457–536.

16. Conrad Gessner, *Historiae Animalium* (Tiguri: C. Froschouerum, 1551–1587).

17. Ulisse Aldrovandi, *Quadrupedum omnium bisulcorum historia* (Bologna: S. Bonomi for G. Tamburini, 1621).

18. Peter Mason, *Before Disenchantment: Images of Exotic Animals and Plants in the Early Modern World* (London: Reaktion, 2009).

exist."[19] "Through this comparison," Odell continues, he "promotes his own authority as the single truthful voice." Nieuhof's specificity, according to Barbara Stafford, upheld the concept "that every locality is individual, unique, and perhaps even numinous," and in doing so, his work "expanded the connotation of the exotic."[20] Nieuhof's detailed written and visual depictions of cultures and animals anticipated what Stafford describes as a "modern secularizing movement directed against the falsehoods of ancient imaginings of reality."[21] The sukotyro, perhaps an unintended fabrication, having been constructed as part of new visual and descriptive standards, was consequently more acceptable as a potential reality.

Nieuhof: Naturalist, Bureaucrat, and Imperialist

The career of Johan Nieuhof (1618–1672) is marked by his service to the Dutch East India Company (the VOC[22]), which was establishing colonies in southern India. The most significant post held by Nieuhof was governor of Quilon (now the city of Kollam), although his duties also included service at Tuticorin (in the Thuthukoodi district of Tamil Nadu), as well as Colombo. After leaving the employ of the VOC, Nieuhof spent time in Java recording descriptions of the population, the local animals and plants, as well as the region's manufactures. Fortunately, in 1670 Nieuhof returned to Amsterdam, where he left his journals and papers in the care of his brother Hendrik, who published them in 1682 as *The Voyages and Travels to the East Indies*, along with a distinguished portrait of his brother (fig.3). Nieuhof then departed, almost immediately, for Madagascar, where he disappeared in 1672.[23] Responsible for all of his brother's documents, Hendrik published them in collection with the following words of reassurance directed toward predictably skeptical readers:

19. Dawn Odell, "The Soul of Transactions: Illustration and Johan Nieuhof's Travels to China," *Tweelinge eener dragt: Woord en beeld in de Nederlanden (1500–1750), The Seventeenth Century* 12:3 (2001): 225–241, at p. 226.

20. Barbara M. Stafford, *Voyage into Substance: Art, Science, Nature, and the Illustrated Travel Account, 1760–1840* (Cambridge, MA: MIT Press, 1984), p. 7.

21. Ibid., p. 1.

22.The abbreviation "VOC" stands for (in Dutch) *Vereenigde Oost-Indische Compagnie*; for additional information about the VOC, see Stephen R. Bowen, *Merchant Kings: When Companies Ruled the World, 1600–1900* (New York: St. Martin's Press, 2010); and Nick Robins, *The Corporation that Changed the World* (London: Pluto Press, 2006).

23. For details of Nieuhof's diplomatic career, see Donald Lach and Edwin J. Van Kley, *Asia in the Making of Europe* (Chicago: University of Chicago Press, 1993), vol. 3, pp. 918–923.

Figure 3. Johan Nieuhof (1618–1672).

> The vast countries through which my brother travelled in his life-time, as Brazil, part of Persia, Malabar, Madura, Coromandel, Amboyna, Ceylon, Malacca, Sumatra, Java, Tagowan, and part of China, besides many islands, could not in the least infect him with that disease, so incident to travelers, to relate fables instead of histories, it having been his constant practice to adhere most religiously in all his treatises to the naked truth, without the least disguise.[24]

"Naked truth" or not, Nieuhof's accounts must surely be taken, on occasion at least, with a grain of salt. In their monumental work *Asia in the Making of Europe*,[25] Donald Lach and Edwin Van Kley call his

24. John Nieuhof, *Voyages and Travels into Brazil and the East-Indies* ([1732] New Delhi: Asian Educational Services, 2003). See Henry Nieuhof's "Advertisement to the Reader," p. 2.

25. Lach and Kley, *Asia in the Making of Europe* (above, n. 23), vols. 1–3.

writing, as well as that of French traveler and scientist Melchisédech Thévenot, "basically derivative,"[26] yet Nieuhof's observations are nonetheless fascinating. What is more, Nieuhof's works, "although blind to the cataclysmic passages in the histories" of people described in his pages, "were so thorough, that they were still consulted as authoritative sources long into the eighteenth century."[27] The fact is, of course, that in describing his surroundings so precisely and dispassionately, Nieuhof is actually narrativizing the colonial rationale of the Dutch East India Company. Nieuhof's descriptions must seem objective, accurate, and immediate in order to establish claims for both empirical and imperial superiority. The unprecedented sukotyro undoubtedly benefited from Nieuhof's reputation for accuracy and authoritativeness. No prior account of anything like the sukotyro seems to exist, and the specificity of detail in the description undoubtedly reinforced Nieuhof's claims for recognition as both colonial agent and naturalist.

Marvels of Nature: True and False

To be sure, the sukotyro has some degree of ancestry. Pliny the Elder describes an Aethiopian creature, the Eale (or Yale), as an animal "the size of a hippopotamus, with an elephant's tail, of a black or tawny colour, with the jaws of a boar and movable horns more than a cubit in length."[28] But as Hendrik Nieuhof promises, his brother Johan is to be trusted to ignore fantastic traveler's tales; he was, in short, even more scrupulous than his contemporaries. After all, while contemporary natural historians such as Conrad Gessner (1515–1565) may have expressed skepticism about creatures like the unicorn,[29] more than a few folkloric (and mythical) beasts found their way into their natural histories. Gessner was no explorer, and so like many natural historians of his time, he relied on "trustworthy" reports from travelers. Gessner was often skeptical of certain descriptions and representations of animals, but his own works betray a high level of credulity and dependence on others. The reliability of evidence from travelers

26. Ibid., vol. 3, p. 922.

27. Julia Berger Hochstrasser, *Still Life and Trade in the Dutch Golden Age* (New Haven, CT: Yale University Press, 2007), p. 108.

28. Pliny the Elder, *Natural History*, trans. H. Rackham (Cambridge, MA: Harvard University Press, 1938), vol. 3, p. 55.

29. Cited in James Truitt, "Monoceros: What Conrad Gessner's Discussion of the Unicorn Tells Us about Natural History in Renaissance Europe," *Unbound* (Smithsonian Libraries blog), September 18, 2017, https://blog.library.si.edu/blog/2017/09/18/monoceros-conrad-gessners-discussion-unicorn-tells-us-natural-history-renaissance-europe/#.XeLISL97nUI.

was, as Brian Ogilvie has observed, a matter of great concern to naturalists.[30] In fact, the growing tendency within professional communities of scientists was to advance a skeptical view of unusual claims in natural history. Bernard de Fontenelle, the secretary of the Académie Royale des Science, was very much on guard against hoaxes and exaggerated claims and pointed out, Lorraine Daston and Katherine Park note, "that it was as much the duty of the Académie to disabuse the Public of false marvels as to report on true ones."[31]

Separating "false" reports from "true" marvels, however, was no easy task in the early days of exploration, when first-hand accounts of exotic animals were limited to a mere handful of observers at best. What is more, both taxidermy and preservation were still primitive techniques, so it was very rare to have unspoiled specimens actually make it back to Europe. At best, Ogilvie continues elsewhere, "the acuity of the science of describing depended on a dense network of scholars making repeated observations and comparison. In its absence, Renaissance scholars were myopic if not completely blind."[32] Still, somewhere between myopia and blindness, we must conjecture, is hope. Eager to add to the wonders of the world, scholars and explorers alike were certainly exhilarated by the prospect of new animals and plants that might challenge conventional thinking. The advent of new animals, or "nondescripts" as they came to be called,[33] surely affected how all organisms were perceived; exciting new animals were being depicted in vivid detail (due in part to the exciting new techniques of illustration) that enhanced features that might have languished in plain narrative. Often these images—even of familiar and widely accepted animals—were notoriously conflicting and inaccurate. And while photography and lithography were available in 1851, they were still relatively imperfect arts and certainly not up to the task of capturing the likeness of fully aquatic marine life. Thus, Herman Melville complains about the dismal state of illustration in chapter 55 of *Moby Dick*, which is titled "Of the Monstrous Pictures of Whales." It is a relentless critique of images used

30. Brian Ogilvie, *The Science of Describing: Natural History in Renaissance Europe* (Chicago: University of Chicago Press, 2006).

31. Lorraine Daston and Katherine Park, *Wonders and the Order of Nature* (New York: Zone Books, 1998), p. 347.

32. Ogilvie, *The Science of Describing* (above, n. 30), p. 243.

33. The English naturalist John Ray (1627–1705), according to the *OED*, was one of the earliest individuals to use this term. *OED Online*, "nondescript, n. and adj." September 2019. Oxford University Press. https://www.oed.com/view/Entry/127896?redirectedFrom=nondescript (accessed December 01, 2019).

in zoological texts to depict whales of all kinds. Not even the "most conscientious compilations of Natural History," Melville writes, are

> free from the same heinousness of mistake. Look at that popular work "Goldsmith's Animated Nature." In the abridged London edition of 1807, there are plates of an alleged "whale" and a "narwhale" [*sic*]. I do not wish to seem inelegant, but this unsightly whale looks much like an amputated sow; and, as for the narwhale [*sic*], one glimpse at it is enough to amaze one that in this nineteenth century such a hippogriff could be palmed for genuine upon any intelligent public of schoolboys.[34]

Melville is not entirely unsympathetic, however, and concedes—allowing for the fact that whales are elusive and difficult to observe—that "there is no earthly way of finding out precisely what the whale really looks like."[35] But what is true of whales also holds for all creatures in the wild, each of which is elusive in its own habitat and can easily be mistaken for a near relative. In fact, detailed and elaborate descriptions are necessary if the artist truly wants to demonstrate their specificity. I use that term in a taxonomic sense, given that beyond the generalities of "genus," the specific qualities that define and distinguish a species may be very subtle and elusive even to the keenest observer of natural history.

Early naturalists faced many competing tensions when depicting new creatures. If the animal were to be comprehended at all, descriptions had to rely heavily on the power of analogy, which helped make the exotic creatures more familiar.[36] But in making the creature more familiar, the natural historian risked reducing his new find to the trivial category of subspecies or simply a freakish anomaly. Conrad Gessner flirts with this kind of absurdity in his description of the beaver as translated by the English naturalist Edward Topsell (1572–1625?): "Their forefeet are like a dog's, and their hinder like a goose's, made as it were of purpose to go on the land, and swim in the water; but the tail of this beast is most strange of all in that it comes nearest to the nature of fishes."[37] Represented as a dog-goose-

34. Herman Melville, *Moby Dick or, The Whale* (1851; repr., New York: The Modern Library, 1950), pp. 264–265.

35. Ibid., p. 267.

36. Ian Hacking, drawing on the work of Hilary Putnam, explores the problem of meaning, sense, taxonomy, and description using the example of the armadillo-like Glyptodon in *Representing and Intervening* (Cambridge: Cambridge University Press, 1983), pp. 75–91.

37. See Conrad Gessner, *Historiae animalium lib.* (Tigvri : Apvd Christ. Froschovervm, 1551–1587), vol. 1, p. 336, http://ceb.nlm.nih.gov/proj/ttp/flash/gesner/gesner.html. See Edward Topsell, *The History of Four-footed Beasts* (London: Printed by E. Cotes, for G. Sawbridge, 1658), p. 366.

Figure 4. Conrad Gessner's Beaver in the *Historiae Animalium*.[1]

1. Gessner, *Historiae Animalium* (above, n. 37), vol. 1, p. 336.

fish composite, the beaver—even when observed alive—is certainly a difficult creature to imagine as an actual living organism. Gessner's illustration (fig. 4), although it has some beaver-like traits (despite seeming remarkably aggressive[38]), does not actually live up to goose-like hindquarters and fish-like tail (aside from the scales) of the written description. While these descriptive and visual touchstones are critical in making the beaver, the animal is inevitably a synthetic and somewhat plastic construction that borrows from language, image, lore, and perception.

For Nieuhof, the sukotyro, by being described like an ox, *becomes* more like an ox and thus merges into a familiar analogue—an epistemic possibility, if you will—that helps the reader situate the creature zoologically. And in locating the sukotyro among the bovids, Nieuhof merges the exotic with the familiar. Illustrations could be misleading and contentious, as David Freedberg observes in *The Eye of the Lynx*,[39] and the differences of opinion about the advantages

38. The beaver's aggressive posture is unusual in that the creature is conventionally described as "gentle," even though—as the twelfth-century *Book of Beasts*, trans. T. H. White (New York: Dover, 1984) notes—it is often pursued for its testicles and will bite them off to save themselves while providing the hunters with what they want (p. 29). Topsell, in his *History of the Foure-footed Beastes* (above, n. 37), p. 47, dismisses this old belief as "most false." For an extensive discussion of early modern depictions of the beaver, see Katherine Acheson, "Gesner, Topsell, and the Purposes of Pictures in Early Modern Natural Histories," in *Printed Images in Early Modern Britain*, ed. Michael Hunter (Burlington: Ashgate Press, 2010), pp. 127–144.

39. David Freedberg, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History* (Chicago: University of Chicago Press, 2002). In Freedberg's

and disadvantages of images were stark. Linnaeus, Freedberg notes, mistrusted images entirely, but the trend in natural history, from Gessner to Aldrovandi to Maria Sybilla Merian—and on to the present day—has been to complement "realistic" textual descriptions with detailed, lavish, and enticing images of the natural world. And, from a commercial perspective, readers came to expect well-illustrated natural histories.[40] The balance between image and text was yet another way to ensure enlightenment readers that the worlds being described to them were credible, plausible, and even scientific.

Nieuhof, though clearly alert to a variety of unfamiliar (or at least exotic) creatures ranging from lemurs to fish to elephants (although elephants were reasonably familiar to Western Europeans), avoids the rhetoric usually associated with the discovery of "marvels." In fact, the sukotyro, a four-toed ungulate that combines the body of a hippo and the head of a large pig or bull, is almost mundane in its overall appearance. What sets it apart is a bizarre set of tusks that extends above the rostrum, appended to the side of the head, without an obvious point of insertion. What is more, the eyes have a distinctive angle that seems to follow along the length of the head. Thus, the sukotyro appears to be a zoological fantasy cobbled together using images from at least several sources. But as fantasies go, the sukotyro, compared, say, to creatures like the manticore or the gryphon, seems plausible enough to actually be a distant and obscure relative of some common ungulate. Rather than offer his readers the sukotyro as a *lusus naturae*, Nieuhof's natural history is rational, calm, and matter-of-fact in its approach to the animal. "The regularity of the new natural order," write Daston and Park, conformed to the new social order that emerged with the enlightenment; "central to the new, secular meaning of enlightenment as a state of mind," they observe, "was the rejection of the marvelous."[41] In this sense, the sukotyro represented a new order of "wonder," domesticated by practices of science that set novelty in the context of ontology and precedence.

Still, assuming that Nieuhof was not attempting a hoax, one cannot help but wonder *what* he observed (if anything) and how his observations managed to stray so far from any creature we know of. We must always be aware, Julia Berger Hochstrasser notes in her study of

translation from *Genera Plantarum* (1737), Linnaeus writes, "[W]ho ever derived a firm argument from a picture?" (pp. 412–413).

40. S. Peter Dance makes this point in *The Art of Natural History: Animal Illustrators and Their Work* (Woodstock, NY: Overlook Press, 1978).

41. Daston and Park, *Order of Nature* (above, n. 31), p. 331.

Dutch realism and still life, "of the conceptual slippage between objects and *images* of objects."[42] The image in Nieuhof's account seems real enough, but is it an image *of* any authentic object in nature? Of the many possible "source" animals that are embodied in the sukotyro, most are actually described elsewhere in Nieuhof's *Voyages*. This includes the elephant, the buffalo, the pig, the tapir, and the hippopotamus. The babirusa, with its formidable body and its peculiar tusks that oddly protrude through the upper jaw (described by the zoologist Alfred Russel Wallace as "extraordinary horn-like teeth"[43]), comes to mind as the most likely of all Indonesian animals to have been misconceived as a sukotyro. The great entomologist and taxonomist Johan Karl Wilhelm Illiger (1775–1813) believed that Nieuhof merely mistook the babirusa for the sukotyro.[44]

But interestingly, Nieuhof obviously was *not* confused, and actually describes a babirusa—or "pig-deer," as it was sometimes known earlier in his text—and provides both an account and an illustration (fig. 5) that suggests a similarity between the animal and a large dog:

> In the isle of Buero[45] lives, among other beasts, a certain strange creature, which by the Indians is counted among the number of monsters. . . . From the middle of the undermost jaw-bone, proceed two teeth, a foot long each, and about an inch thick, which pierce the mouth, and are somewhat crooked, like those of a wild boar. Out of the upper jaw-bones spring forth two horns, on each side one, of an inch thick, a quarter of a yard long, very smooth like teeth, and turn's like a hook at the end, which makes it look at first sight as if it were armed with 4 horns.[46]

So, it is clear—Illiger's hypothesis notwithstanding—that Nieuhof is neither confused about animal classification, nor is he conflating the sukotyro with the babirusa.

42. Hochstrasster, *Still Life and Trade* (above, n. 27), p. 6.

43. Alfred Russel Wallace, *The Malay Archipelago* (1869; repr., Singapore: Periplus, 2000), p. 212. William Paley, in his *Natural Theology*, ed. James Paxton (1802; repr., Boston: Gould and Kendall, 1841), offers the following speculation about the tusks, which echoes the work of other natural historians such as Goldsmith, Buffon, and Sir John Barrow, but is dealt with skeptically by James Paxton, one of his earliest editors: "the animal hitches one of these bent upper teeth upon the branch of a tree, and then suffers its whole body to swing from it. This is its manner of taking repose, and of consulting for its safety. It continues the whole night suspended by its tooth, both easy in its posture, and secure; being out of the reach of animals which hunt it for prey" (p. 144).

44. Johann Karl Wilhelm Illiger, *Prodromus systematis mammalium et avium* (Berlin: C. Salfeld, 1811), p. 100.

45. This refers to the island of Büro in the archipelago.

46. Nieuhof, *Voyages and Travels* (above, n. 11), p. 161.

The conſtitution of this iſland. The iſland *Buero* is very fertile and abounding in trees near the ſea-ſhore. It produces *Coco* and *Bananas* trees, *Pynany*, green ebony wood-trees, potatoes, beans, *Katjang* (a certain kind of peaſe) millet or indian-wheat, tobacco, lime-trees, and di-

Figure 5. Nieuhof's depiction of a Babirusa[1] and a contemporary photo (Courtesy of Anthony Casarotto).

1. Ibid., p. 160.

As an aside, for anyone who has ever seen one live or merely observed a skull in a museum collection, it must be said that the sheer implausibility of the babirusa only seems to lend credence to the zoological fantastic. Two of the animal's tusks penetrate the upper maxilla in a striking manner that, even for contemporary viewers, seems to defy credulity. What is more, the manner in which the tusks curl around on themselves (often forming a full loop) is such a bizarre sight, that it caused early naturalists to speculate that they were hooked around branches, thereby allowing the babirusa to sleep while suspended.

Needless to say, the babirusa actually sleeps like most other mammals, but the improbable structure of the animal's skull still fascinates naturalists. In 1764, the *London Magazine* published an article offering descriptions of "uncommon animals" including the "Babyroussa" and the "Sucotario" (borrowing descriptive texts for both—almost verbatim—from Nieuhof), along with creatures from the New World.[47] Readers of the *London Magazine* would surely have been puzzling their way toward a rational understanding of the sukotyro. As Umberto Eco notes in his observations about the platypus, "[T]he first attempt to understand what is seen is to consider the experience in relation to a previous categorical system."[48] Thus both the babirusa and the sukotyro may simply have struck readers as equivalent examples of oddities within a natural world that was still not fully catalogued.

Sukotyro Taxonomy

This equivalency is surely what William Turton (1762–1835), physician and malacologist, must have believed when he included the sukotyro (and, of course, the babirusa) in his 1806 edition of Linnaeus's *System of Nature*, itself adapted from an edition of the work by Johann Georg Gmelin (1709–1755), Johann Christian Fabricius (1745–1808), and Carl Ludwig Willdenow (1765–1812).[49] Adding only a little embellishment of his own invention, Turton's description of the sukotyro notes that it "inhabits Java," that it is "thick" and "clumsy," and that it "feeds on herbs." These very insignificant modifications on Turton's part are less striking than the fact that the

47. *The London Magazine or Gentleman's Monthly Intelligencer* 33 (1764): 640–641.

48. Umberto Eco, *Kant and the Platypus. Essays on Language and Cognition,* trans. Alastair McEwen (New York: Harcourt, 1997), pp. 248–249.

49. Carl von Linné and William Turton, *A General System of Nature through the three Grand Kingdoms of Animals, Vegetables, and Minerals*, vol. 1 (London: Lackington, Allen, and Co., 1802); the sukotyro is described on p. 35, the babirusa on p. 126.

sukotyro manages to "survive" in a classic work in taxonomy into the nineteenth century even though, with one notable and fraudulent exception, not a fragment of the animal had been found for a century and a half. More striking yet is the fact that every single image of the sukotyro can—quite literally—be *traced* back to Nieuhof's original drawings. Ebenezer Sibly's illustration in his *Natural History* (fig. 6), pairing the Sukotyro with the newly "discovered" and equally exotic platypus, is a case in point.

It is possible, of course, that the image of the sukotyro (or any other image of the time) was not meant to be definitive or static. As art historian Susan Dackerman has observed, "[P]rints may have served not only as vehicles for pictorial claims that could be revised in a never-ending march toward the most faithful depiction, but also as tools of persuasion with argumentative as well as descriptive and demonstrative functions."[50] Thus, assuming other sightings would occur, Nieuhof's original image would merely have served as a starting point for a series of illustrations that would reflect greater accuracy and greater specificity.

The title page of Nieuhof's *Voyages and Travels into Brasil and the East-Indies: Containing an Exact Description of the Dutch Brasil, and Divers Parts of the East-Indies* depicts a celebratory parade of the East Indies, triumphantly offering the reader a crowded panorama of the peoples, creatures, products, landmarks, and artifacts of the Indies. The carnivalesque atmosphere is slightly disrupted by the image of a corpse dangling from a tree, perhaps a grim reminder of colonial might amidst the jocularity of the scene. And the scene is, in general, very high-spirited. Even so, most of the images, ranging from an elephant with a howdah, lions, leopards, parrots, vases, and natives in ostensibly local garb,[51] are conventional if not entirely familiar. But out in the foreground, commanding an important position in the frontispiece, as a whole, is the sukotyro. It may be telling to us that this version of the creature is an exact mirror image of the depiction in the text—a reverse tracing—but the similarity was apparently neither noticeable nor disturbing. In a sense, it could have been understood as a second depiction of the sukotyro, reinforcing the animal's very existence.

Given the theatrical function of frontispiece images such as this, the idea of spectacle supersedes the possibility of scientific detail. So

50. Susan Dackerman, *Prints and the Pursuit of Knowledge in Early Modern Europe* (Cambridge, MA: Harvard Art Museums, 2011), p. 28.

51. The natives are wearing feather headdresses that seem to be closely related to those of North American tribes.

Figure 6. The sukotyro was often paired with elephants, tapirs, and in a later edition (1804) of Ebenezer Sibly's *Universal System of Natural History*,[1] with a platypus.

1. Ebenezer Sibly, *An Universal System of Natural History* (London: Printed for the Proprietor: sold by Champante and Whitrow, 1794–1808), p. 590.

it is hardly surprising that the flying squirrel, which nicely fills the empty space of the frontispiece, has been interpreted as an ornament, as though the squirrel is itself so exhilarated by the parade that it simply had to leap into flight. This jubilant creature, however, may not have been any ordinary flying squirrel, but is perhaps the earliest depictions of the Sumatran Flying Squirrel (*Hylopetes winstoni*), which was not "discovered" until 1949, when described by Henry Ja-

cob Victor Sody (1882–1959). According to Richard Thorington and coauthors in their *Squirrels of the World* (2012), "information about the species is based on a single specimen."[52] If that is the case, the inclusion of the image of the squirrel only serves to underscore the degree to which Nieuhof was interested in being viewed as a reliable natural historian.

One measure of Nieuhof's credibility is the fact that no less a figure than the physician and naturalist Hans Sloane was curious, if not convinced, about the sukotyro's existence. Aware of the fact that no remnant of the animal had yet been discovered, he was eager to obtain scientific evidence of the sukotyro's existence. Hearing of a pair of horns in the basement of one Richard Doyly[53] in Wapping, Sloane, the insatiable collector, found his way there and purchased the horns for his personal cabinet of wonders. Although they were eventually revealed to be the horns of a water buffalo (*Bubalus bubalis*), which has horns (not tusks) that extend outward and behind the head, they retained a prominent spot in the original collection and subsequently in the Kensington Museum of Natural History.[54]

The purchase of the horns/tusks, as documented in the *Philosophical Transactions* of 1727, indicates that Sloane himself was assured, by "the commander of an East India merchant ship," that these horns actually belonged to "a very large sort of bull's [*sic*] or cows, who are natives of Ethiopia, and other of the midland parts of Africa."[55] And a footnote, citing Shaw's *General Zoology*, suggests that "they seem to be the horns of the *bos arnee* [*sic*], or Great Indian buffalo" (fig. 7).

The re-classification of the prospective sukotyro tusks to water buffalo horns might easily have quashed zoological enthusiasm. But rather than put any notion of the existence of the sukotyro to rest, interest in the animal may well have increased. Descriptions and images of the animal continued to appear in encyclopedias and books on natural history well into the early nineteenth century. One of the crudest reproductions appears in *The Natural History of Four-Footed Beasts*, a work for children, which was published in 1781 (fig. 8).[56]

52. Richard W. Thorington et al., *Squirrels of the World* (Baltimore: Johns Hopkins, 2012), p. 105.

53. Said to be the draper who invented what we now call the doily.

54. Many thanks to Richard Sabin, Principal Curator (Mammals), at London's Natural History Museum, for information related to these horns.

55. Hans Sloane, "Description of a Pair of Horns, of an Extraordinary Size and Shape," *Gentleman's Magazine* 39 (1769): 64, at p. 64. (This article is a variant of an earlier piece, "An Account of a Pair of Extraordinary Large Horns Found in Wapping," *Philosophical Transactions* 34:397 [1727]: 222–229.)

56. T. Teltruth, *The Natural History of Four-Footed Beasts* (London: J. Newbery, 1781). The

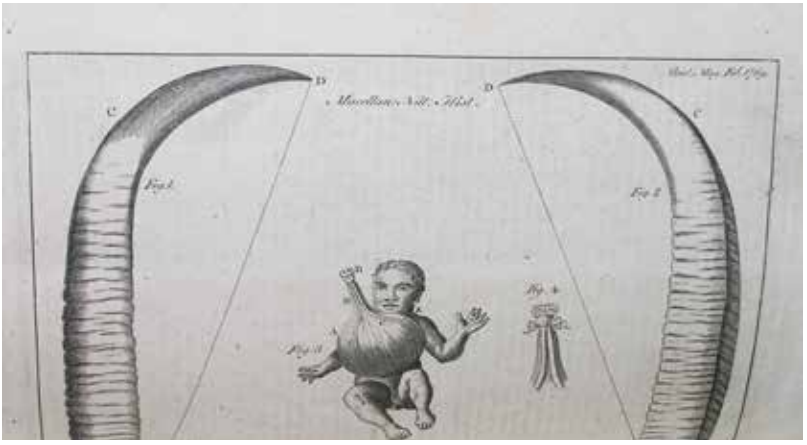

Figure 7. The ostensible horns of the sukotyro as found by Sir Hans Sloane. (The baby illustrates an adjacent article on the everted umbilicus.)[1]

1. Sloane, "Account of a Pair of Extraordinary Large Horns" (above, n. 57), p. 64.

Figure 8. The sukotyro as depicted in a work for children (1781) by "Thomas Teltruth."

Under the heading "Sucotiro, or Sucotario," the creature is considered "a Chinese animal of a very odd shape," and while Sloane's horns are mentioned, the author proposes that they must actually belong to a "very large sort of Bulls or Cows, that are met with in the midland parts of Africa; and of which the ancients have given fabulous descriptions."[57]

book undoubtedly takes its title from the very popular *The History of Four-footed Beasts* published by Edward Topsell in 1607 (above, n. 37).

57. Teltruth, *Natural History of Four-Footed Beasts* (above, n. 59), p. 56.

The image of the sukotyro endured, and even in its crudest form—and certainly the image from Teltruth qualifies one of the most unskilled tracings of the original—exudes some degree of mystery. The printed image helped assert the presence of a true scientific source that, as Elizabeth Eisenstein suggests,[58] would bear comparison and testing as new images were printed and distributed. Still, some images, whether "accurate" or not, achieved ascendency if only because of artistic merit. Thus while Dürer's rhinoceros (to choose the most well-known example) is unmistakably a rhinoceros (an Indian rhinoceros to be specific: *Rhinoceros unicornis*), Dürer (who worked from a sketch rather than a live model) clearly took a great deal of stylistic license in order to render the image, and though he was certainly aware that his image would have a wide circulation, he could never have anticipated the longevity of its success.[59] Yet the image, which is delightfully pleasing and meticulous in detail, has endured and in fact might even be considered iconic—in a sense more rhinoceros-like than the rhinoceros itself.[60] George Stubbs's famous zebra is perhaps truer to the form of our contemporary impression of zebras—in contrast to the fanciful elements of the rhinoceros—but given that it is set solitarily against the backdrop of an English forest, this zebra portrait is, in many ways, as misleading as a depiction of the creature behind the bars of a zoo.

One might well argue that the figure of the sukotyro borrows a variety of elements not found in a single animal, but this is true of many species including the zebra, which has the body of a horse and the stripes of a tiger. And old habits endure; the giraffe is still scientifically known by its chimeric species name, *camelopardalis*, combining the features of a camel and the spots of a leopard. Nieuhof acknowledges a constellation of similarities to other animals in his text, but he also expresses a great deal of certainty about some of

58. See Elizabeth Eisenstein, *The Printing Revolution in Early Modern Europe* (Cambridge: Cambridge University Press, 1983), chap. 7.

59. For a discussion of the many impressions made from the original woodcut, see Colin Eisler, *Dürer's Animals* (Washington: Smithsonian Institution Press, 1991). Renaissance print editions, writes Suzanne Karr Schmidt, were "potentially limitless in quantity and highly portable." *Altered and Adorned: Using Renaissance Prints in Daily Life* (Chicago: Art Institute of Chicago, 2011), p. 9.

60. Francis Joseph Cole, "The History of Albrecht Dürer's Rhinoceros in Zoological Literature," in *Science, Medicine and History: Essays on the Evolution of Scientific Thought and Medical Practice, Written in Honour of Charles Singer*, ed. E. A. Underwood (London: Oxford University Press, 1953), vol. 1, pp. 337–356, figs. 1–22. See also Craig Ashley Hanson, "Representing the Rhinoceros: The Royal Society between Art and Science in the Eighteenth Century," *Journal for Eighteenth-Century Studies* 33:4 (2010): 545–566.

the animal's features . . . including the peculiar angle of its eyes. If we do not take Nieuhof at his word, and then search for a potential sukotyro look-alike, we only risk expanding the long list of features that many animals share in common.

Emblem and Allegory in the Real and the Imagined

Yet even, on the outside chance, that the sukotyro did have its roots in a bovine deformity, it somehow remained a plausible creature for hundreds of years. This, in spite of the fact that virtually every illustration of the animal is plagiarized from Nieuhof's original text, and that no remains of the animal have been found. The animal surely represented some appealing concept to both readers and natural historians that they were not yet ready to deny. History has always found mythical creatures (even when debunked) fascinating, and they prove remarkably resilient in culture.

As the Physiologus text and the work of other early naturalists demonstrated, the most mundane creatures have a kind of allegorical resonance that is compelling. And while contemporary readers may not accept the Christian and moral allegories of the past, allegory is still a resilient force in the modern era. Since we have spent some time with the beaver already, let us turn back to it for a moment. Serving, in a very official capacity, as Canada's national animal,[61] the beaver (industrious, communal, and—perhaps—parliamentary) seems to emblematize a Canadian sensibility, in a way that resists the raptorial and predatory illusion constructed around America's bald eagle. Neither beaver nor eagle asked for these roles, but they nevertheless find themselves emblematized on flags, currency, movies, magazines, and bumper stickers. Once upon a time, elephants emblematized piety, in part because their supposed fear of snakes (themselves the emblem of Satan); over the years, that piety has been reconfigured into the quality of sagacity for which elephants are renowned.[62]

61. The text of the National Symbol of Canada Act (R.S.C., 1985, c. N-17) reads, "It is hereby recognized and declared that the Beaver (*Castor canadensis*) is a symbol of the sovereignty of Canada and it is proclaimed that any representation of the Beaver (*Castor canadensis*) when used by Her Majesty in right of Canada shall be so used and so regarded."

62. Leonard Slatkes makes this argument in "Rembrandt's Elephant," *Simiolus: Netherlands Quarterly for the History of Art* 11:1 (1980): 7–13. For the enduring allegorical resonance of animals, it is worth recalling Paul Simon, "At the Zoo," track 6 on *Bookends* (New York: Columbia, 1968) in which he follows—tongue-in cheek—an age-old allegorical formula by telling us that "The monkeys stand for honesty / Giraffes are insincere / And the elephants are kindly but they're dumb / Orangutans are skeptical of changes in their cages / And the zookeeper is very fond of rum."

Beavers, eagles, and elephants, however, are all real and extant, in contrast to the doubtful Sukotyro, and so it is more difficult to account for the persistence of the Sukotyro (in both text and image) in the literature. To be sure, part of the appeal was that no reader had actually ever seen a sukotyro in an era when many new and exotic animals were being toured through Europe. Here then was an ongoing emblem not only for pursuing the unknown but also for asserting the colonial initiative to bring sense and order to the unruly worlds. The "authoritative" account in Nieuhof helped establish an iconic creature that subsequent authors did not want to undermine in their own descriptions of the natural world. Thus, descriptions of the sukotyro persisted with remarkable frequency. In *A New and Accurate System of Natural History*,[63] which generally provides highly detailed anatomical accounts of animals, physician and natural historian Richard Brookes (1721–1763) borrows Nieuhof's text and image for the sukotyro and, surprisingly, duplicates the peculiar image of the Babyroussa [*sic*] as well. Other encyclopedic compendia that feature the sukotyro include Ebenezer Sibly's *A Universal System of Natural History*, George Shaw's *General Zoology: Or Systematic Natural History*, Abraham Rees's (1743–1825) *The Cyclopædia; or, Universal Dictionary of Arts, Sciences, and Literature*, and John Wilkes's *Encyclopaedia Londinensis*.[64] Even Diderot provides a lengthy description in *l'Encyclopédie* (1751–1772), which also includes a description of Hans Sloane's acquisition of sukotyro horns. The sukotyro appears in an entry and an illustration (in which it is accompanied by a Malayan Tapir) in the *Pantalogia*, an encyclopedia edited by the physician John Mason Good, the mathematician Olinthus Gregory, and the polymath Newton Bosworth. Writers at the turn of the nineteenth century seemed to want to hold on to the idea of the sukotyro, yet by 1833, Sir William Jardine, in his *Naturalist's Library*,[65] alludes briefly to the animal, but hardly credits its existence.

Had a specimen of the sukotyro actually existed, the poor creature—relatively dull in appearance—might have lost its luster and,

63. Richard Brookes, *A New and Accurate System of Natural History* (London: Newbery, 1766.)

64. Ebenezer Sibly, *A Universal System of Natural History* (above, n. 58); George Shaw, *General Zoology: Or Systematic Natural History* (London, Printed for G. Kearsley, 1800-26); Abraham Rees, *The Cyclopædia; or, Universal Dictionary of Arts, Sciences, and Literature* (London : Longman, Hurst, Rees, Orme & Brown [etc.], 1819); and John Wilkes, *Encyclopaedia Londinensis* (London, Printed for the proprietor by J. Adlard, 1810).

65. Sir William Jardine, *The Naturalist's Library* (London: Henry Bohn, 1833), vol. 23, p. 76.

once put on display, become one of the nine-day wonders described by Harriet Ritvo:

> No matter how curious or spectacular however, most of these creatures, like the giraffes and hippopotami that followed them in the nineteenth century, were in effect nine-days'-wonders, enjoying a brief rush of celebrity and then dwindling into routine menageries and museum displays and conventional encyclopedia entries.[66]

Perhaps because it was so elusive, a kind of rarity not unlike the thylacine or Tasmanian tiger,[67] the sukotyro's reputation and image survived into the very early nineteenth century to enhance texts of authors who were still willing to flirt with the unknown. But as the roster of known animals began to snowball, there seemed little room for animals that merely had a page in encyclopedia to their credit. Not only did George Wombwell's, Gilbert Pidcock's, and Stephani Polito's travelling menageries display exotic animals, but so did, in earlier days, the Tower of London. Between 1773 and 1829, exotic animals were on view in the center of London (near the Strand) at the renowned Exeter Change. Elsewhere, a wapiti was briefly housed in the Kings Mews at Charing Cross,[68] and William Bullock's ongoing displays in the Egyptian Hall on Piccadilly included caribou that was shown alongside a family of Laplanders.

As important as private and commercial menageries were with respect to increased awareness of animals, the decline of the sukotyro around this time surely owe a great deal to the establishment of "scientific" public zoos first in Vienna in 1779 (*Tiergarten Schönbrunn*), then in Paris in 1794 (*Jardin des plantes*), and finally the London Zoo in 1827. Zoo patrons witnessed the flesh-and-blood embodiments of the exotic animals that they had always wondered about and in a short matter of a couple of decades the sukotyro lost its cachet as an exotic animal still waiting to be embodied.

With no living specimens or even preserved remains for that matter (aside from Sloane's tusks/horns), uncertainty about the existence of the sukotyro—in a time of animal abundance—had to increase.

66. Harriet Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age* (Cambridge, MA: Harvard University Press, 1987), p. 5.

67. The last living Thylacine, of which there are photographs and recordings, died in captivity in 1936, but sightings in the wild persist and have even become more robust in the last few years. See Elle Hansen, "Tasmanian Tiger Sightings: 'I Represent 3,000 People Who Have Been Told They're Nuts,'" *Guardian*, November 30, 2016, https://www.theguardian.com/environment/2016/dec/01/tasmanian-tiger-sightings-i-represent-3000-people-who-have-been-told-theyre-nuts.

68. See "Colonial Zoology," *The Colonial Journal* 2:3–4 (1816): 9–10, at p. 9.

Yet to some extent, as I have already suggested, the absence of a body might have added—at least briefly—to the longevity of the sukotyro, since there was no evidence, aside from the image and description, around which a debate might be centered. By contrast, when the first platypus arrived in the west around 1798, it immediately became subject to doubtful scrutiny and was, at the outset, considered a hoax.[69] (This is hardly surprising as even in the Aboriginal Dreamtime myth, the platypus is the product of an unlikely match between Bilargun or Biggoon, a water rat, and Daroo, a duck.[70]) As more platypus specimens arrived in the West, the incredible became credible, even though the specimens represented some puzzling tasks with respect to taxonomy, physiology, anatomy, and behavior. Another latecomer to the zoological scene was the okapi, which Europeans "discovered" in 1901[71] after the explorer Sir Harry Johnston received bandoliers made of unusual skins. These skin fragments of the elusive—but not unknown[72]—okapi were classified and introduced to science by Sir Philip Sclater (1829–1913), Secretary of the Zoological Society of London, only to be followed up by an actual skin and two skull that were sent back to Johnston in London, leading to an even more formal monograph (atlas) by the esteemed zoologist E. Ray Lankester (1847–1929), who also had the benefit of yet another specimen obtained by the explorer Percy Powell-Cotton (1866–1940), who was eager to have a stake in the pursuit of the okapi. By comparison, the sukotyro had merely a paper trail without the advantage of skins, skulls, and frenzied explorers.

In the absence of physical evidence, then, what is the source of the sukotyro's longevity? The charm of the animal seems to have been in the way that it met expectations of what that "kind" of animal should look like, but with an added frisson of novelty that helped make it unique.[73] The sukotyro adhered to the early process of scientific observation that Lorraine Daston and Peter Galison call

69. Ann Moyal, *Platypus: The Extraordinary Story of How a Curious Creature Baffled the World* (Washington, DC: Smithsonian Institution Press, 2001).

70. Helen F. McKay et al., *Gadi Mirrabooka: Australian Aboriginal Tales from the Dreaming* (Englewood, CO: Libraries Unlimited, 2001), pp. 57–60.

71. Evidence of the Okapi was discovered by Sir Harry Johnston in 1901. The animal was subsequently described by E. Ray Lankester, "On *Okapia*, a New Genus of *Giraffidae* from Central Africa," *Transactions of the Zoological Society of London* 16:4 (1902): 279–314.

72. Sir Henry Morton Stanley described something like the Okapi in appendix B of his book, *In Darkest Africa* (London: Sampson, Marston, Searle, and Rivington, 1890).

73. The Okapi may have benefitted—in its own time—for a comparable homeliness, first being characterized as a kind of donkey, and subsequently (with greater accuracy) as a curious relative of the giraffe.

"Truth-to-Nature," in their study of objectivity. Nieuhof's work not only served the natural sciences because it "standardiz[ed] objects in a visual form," but because it "served the cause of public distribution of data for the scientific community, but preserving what is ephemeral and distributing what is rare and inaccessible to all who could purchase the volume and not just the lucky who were in the right place at the right time."[74] Its actual existence was predicated on a set of assumptions and expectations of the varieties of animals that might be anticipated from the wilds of Indonesia. It had what Daston and Galison term "the stamp of the real,"[75] and with respect to what was then known about morphology and ecology, the sukotyro had epistemic credibility. Thus, however unlikely the sukotyro may seem to a current reader, it was only modestly—albeit engagingly—different from the animals to which it was ostensibly related. If we look at Pierre Belon's hippopotamus, by comparison, which seems perfectly at ease wrestling a crocodile, or even more dramatically, if we consider his walrus,[76] which incorporates something like "over-the-shoulder" gills and a fish tail, the sukotyro is hardly an outrageous example of an unusually bizarre quadruped (fig. 9).

Unlike the aggressive hippo or the "fishy" walrus, the sukotyro seemed unassuming and—horns notwithstanding—conventional and perhaps even "cuddly." On more than one occasion, my students, when seeing a sukotyro image for the first time, recognize a little something of A. A. Milne's Eeyore (as drawn by E. H. Shepard) in its posture and demeanor. To be sure, both creatures share an abject appearance that reveals little optimism and less self-confidence. If my students are correct, and if Milne's Eeyore can serve as an example, the appearance is really quite endearing. Even more to the point, the two representations—both of implausible ungulates—converge to suggest a shared emblematic connotation.

The Influx of Exotics in Europe

While Eeyore continues to thrive in the world of fictional creatures, the sukotyro had to contend with an ever-increasing influx of real animals with which it might be compared. As Europe became home to a wide range of exotic animals from the colonies, the exotic became real.[77] Hanno, an Asian elephant, for example, was presented

74. Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books, 2007), p. 63.

75. Ibid., p. 93.

76. See Brian Ogilvie on the Walrus in *Science of Describing* (above, n. 30), pp. 231–244.

77. Keith Thomas, *Man and the Natural World: A History of the Modern Sensibility* (New York: Pantheon Books, 1983).

Figure 9. Pierre Belon's hippopotamus attacking a crocodile (l), and walrus (r).

to Pope Leo X in 1514.[78] And despite his death in 1516, his image endured in a variety of woodcuts, coins, and engravings, to say nothing of a fresco by Raphael.[79]

Even more striking was the Indian rhinoceros given to King Manuel I of Portugal, and subsequently regifted (as it were) to Pope Leo X.[80] Alas, the rhino died in a shipwreck before ever making it to Rome, but enough people had seen, described, and even depicted the rhino to ultimately produce what is arguably the most iconic animal image in Western culture, Albrecht Dürer's *The Rhinoceros* (1515). Dürer (1471–1528), then living in his native town of Nuremburg, never actually saw the rhinoceros but clearly worked closely from a description and a now-lost image to create the image that visually defined the rhinoceros for centuries, the image that became, as David Quammen noted, "the boilerplate rhino."[81] This image, "a tendentious bit of surrealism" in Quammen's view, epitomized the spirit of invulnerable power and self-assertion (fig. 10).

But Dürer's rhinoceros was brilliantly, if not accurately, illustrated, representing the rhino's unmistakable belligerence in a form that compelled the reader to look again and again. Later evocations of

78. See Silvio Bedini, *The Pope's Elephant* (New York: Penguin, 2000).

79. Years later, around 1637, an Indian elephant named Hansken would serve as a model for Rembrandt. See Slatkes, "Rembrandt's Elephant" (above, n. 66).

80. See T. H. Clarke, *The Rhinoceros from Dürer to Stubbs, 1515–1799* (London: Sotheby's Publications, 1986).

81. David Quammen, *The Boilerplate Rhino* (New York: Scribner, 2000), pp. 201–209.

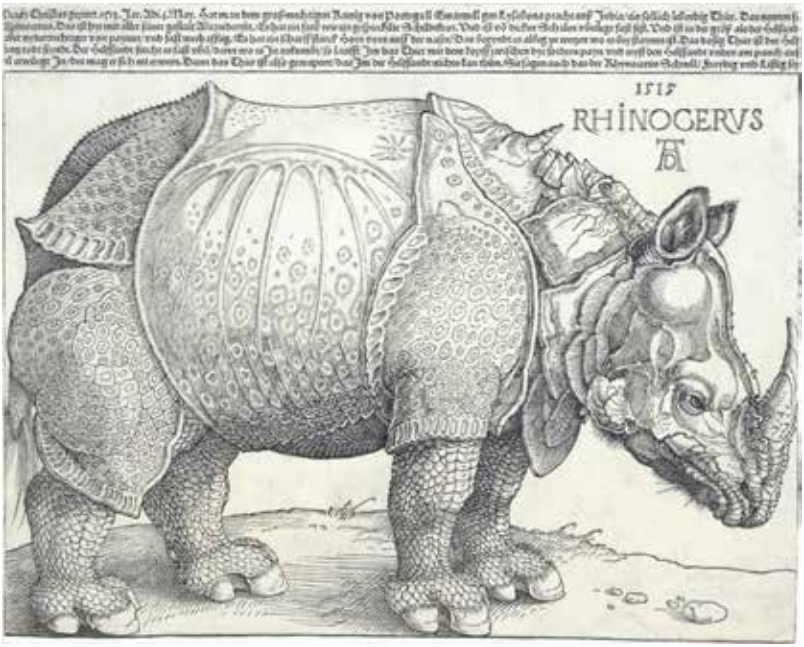

Figure 10. Alfred Dürer's renowned *Rhinocerus* [sic] (1515).

the rhinoceros—and of Dürer's influence—appear very early and often. Dürer's rhinoceros outstripped mere representation to become a true icon, an emblem—and apparently more to the point, a *natural* emblem—of strength, of resolve, of power, and of invulnerability. Who would not want to be associated with such an image?[82] And fortunately, in the new age of print, thousands of individuals were able to adorn their walls with an image of the noble and indomitable rhinoceros.

Of course, the image is a thing and not the animal itself. But the thing, the image, has a potency and a life in its own right. Dürer's woodcut has outlasted thousands of more accurate depictions of rhinos even in the era of photographic representation.[83] And though it goes without saying that the image of the sukotyro shares a fraction

82. John Milton may be an exception, as Karen Edwards points out. "When Milton mentions the rhinoceros in *Defensio Secunda*," Edwards writes, "it is to deny that he resembles one." "Rhinoceros," *Milton Quarterly* 42:4 (2008): 290–294, at p. 293. Shakespeare's Macbeth, on the other hand, screws his courage to the rhinoceros's point by invoking an "armed rhinoceros" when he sees the Banquo's ghost (act 3, scene 4, ll. 102–107).

83. The image may have appeared in German Schoolbooks up until the 1930s.

of iconographic impact of Dürer's rhino, the fact is that both images—each in their own way—survived time and scrutiny. Interestingly, the growing number of rhinos (of varying species) imported into Europe did little to unseat Dürer's rhinoceros from its iconographic throne. They may well have, in fact, reinforced the image as the most appealing (if not credible) representation of an animal that was not only beyond credulity, but ultimately less appealing in the flesh than it was in ink. John Evelyn (1620–1706), who encountered Clara, a rhinoceros on display at the Bell Savage Inn at Ludgate Hill, characterized the animal as a "huge enormous Swine."[84] Yet despite his comments about "her dreadfull teeth" and the "lappets of skin" hanging down from her, he is enchanted when he notes a similarity between her hide and a "coate of maile, loricated like Armor," which he concedes, quite tellingly, resembles "the manner this animal is usualy [*sic*] depicted." Even with the animal close at hand, the animal, for Evelyn, is Düreresque.

That Evelyn should defer to the image—even in the face of his own powers of observation—is not only fascinating, but is also a telling reminder of the extent to which an image can serve for an object, both in the absence and the presence of the object. That, in great measure, is the legacy of the sukotyro. For over a century, it was a creature never forgotten, but also never there. Had the influx of exotic animals into Europe never occurred, the absence of an actual specimen might not have been a problem, but even that seems unlikely given the shift in scientific thought to what Daston and Galison call "Mechanical Objectivity," which entailed "the insistent drive to repress willful intervention of the artist-author, and to put in its stead a set of procedures that would, as it were, move nature to the page through a strict protocol."[85] And protocol seemed impossible given that no specimens of a sukotyro were forthcoming; the shifting climate of objectivity demanded more than either hearsay, written descriptions, or newly refreshed (albeit plagiarized) illustrations.

The Dodo, a Sukotryan Analogue?

And so, the sukotyro died a death it hardly deserved, never having been alive in the first place. Of course, assuming the sukotyro is a

84. Evelyn's observations are cited in Caroline Grigson's *Menageries: The History of Exotic Animals in England* (Oxford: Oxford University Press, 2016), pp. 38-39. See also Glynis Ridley, *Clara's Grand Tour: Travels with a Rhinoceros in Eighteenth-Century Europe* (New York: Atlantic Monthly Press, 2005) as well as Kelly Enright, *Rhinoceros* (London: Reaktion Books, 2008).

85. Daston and Galison, *Objectivity* (above, n. 78), p. 121.

fiction, there is certainly nothing tragic about its "extinction," as there is with, say, the passenger pigeon, the Tasmanian tiger, the Stellar Sea cow, and that great emblem of extermination, the dodo. Yet all of these animals, fictional or real, share similar narratives—and more to the point, flawed narratives—of discovery, description, and classification. As a mere fiction of natural history, the sukotyro offers a useful and provocative history to help understand the way we imagine animals that are or were unarguably "real," like, for example, the renowned dodo. Classic depictions (and even restorations) of the dodo (*Raphus cucullatis*), which became extinct on the island of Mauritius at the end of the seventeenth century, are in fact imaginary constructions of what the real bird might have looked like in life.[86] If we consider three contemporary representations of the dodo (fig. 11), the most renowned (and familiar) by Roelandt Savery (1576–1639) in 1626, a very simplistic illustration in the work of Sir Thomas Herbert (1606–1682), in 1634, and another, by the highly respected artist, Cornelis Saftleven (1607–1681) in 1638, we see radically disparate renderings of the same animal.

What is more, as palaeobiologist (and artist) Julian Pender Hume has noted in his comprehensive overview of the dodo, the illustrations were often based on "dubious accounts" from "observers" who had never actually seen a dodo or perhaps even visited Mauritius. Thus, the illustrations provide "little information about Dodo morphology and ecology," and so, Hume reminds us, the dodo—as an actual organism—will always be a mystery.[87] Hume continues, "[T]he myth surrounding the Dodo has nurtured the obsession of ornithologists [and] historians . . . who have ultimately recreated their own reasoning as to the true nature of the bird."[88]

The point worth making in this brief digression on the dodo, an animal we are certain actually existed, is that it too exists in a sphere of representation that undermines the very facts of its being. Simply put, even though everyone thinks they know what a dodo is, they do not really *know* the dodo. In this sense, the sukotyro has much in common with the dodo because its existence is as much of a cultural

86. For a comprehensive overview of the biology, ecology, and morphology of the Dodo (and the animals it dwelled with on the islands Mauritius, Réunion, and Rodrigues), see Anthony Cheke and Julian Hume, *Lost Land of the Dodo* (New Haven, CT: Yale University Press, 2008).

87. Julian Pender Hume, "The History of the Dodo *Raphus cucullatus* and the Penguin of Mauritius," *Historical Biology* 18:2 (2006): 69–93, at p. 90.

88. Ibid., p. 90.

Figure 11. Dodos as depicted by Roelandt Savery (1576–1639) in 1626 (Courtesy of the Natural History Museum) (above), Sir Thomas Herbert (1606–1682) (Courtesy of University of Leicester: Archives and Special Collections- SCM 09672) (bottom left), and Cornelis Saftleven (1607–1681) (Courtesy of Museum Boijmans Van Beuningen) (bottom right).

concept as it is a biological reality. To be sure, one must not be so relativistic as to dismiss the critical importance of biological remains such as skins, bones, and perhaps even genes, but even these bits of evidence raise as many questions as they answer. If the sukotyro does nothing else in our history of animal life, it helps us consider the power of representation, the strength of narrative, the urge to trust,

and the delight of discovery. So important are those qualities—with respect to the sukotyro—that even when questioned and doubted, cultural representations of the creature endure whether in old prints, archived resources, blogs, web pages,[89] and—quite frankly—in scholarly inquiry. The very existence of the idea of the sukotyro is necessarily compelling in our understanding of how we construct culture, as its "extinction" (even though it is never fully gone). Though arguably a small footnote in the history of representation, animals, or even cryptids, its narrative power—though unique in one sense (sui generis)—is universal as we try to make sense of the intersection(s) of science and culture.

Living the Life of Extinction

For better or worse, I must add a coda to this essay, even though it risks undermining some elements of my argument. To do so, I have to turn our attention to an event in 1793 when the first Sumatran rhinoceros was shot a short distance away from Fort Marlborough on the west coast of Sumatra.[90] As rhinos go, the species (*Dicerorhinus sumatrensis*), sometimes called the Hairy Rhinoceros, is rather small and often bears a kind of shaggy hair or fur that also distinguishes it (fig. 12). Unlike Dürer's Indian rhinoceros, it has two horns, although neither may be prominent; in fact, *Walker's Mammals of the World*, a primary zoological source, notes that the second horn (over the frontal bones) may be "inconspicuous."[91] In profile, the animal has a ridge that follows the contour of its face, from the eye to the mouth, which, when sketchily drawn, might well look like a horn mounted on the side of the muzzle. "The facial skin," Walker notes, "is characteristically wrinkled around the eye."[92] Whether this skin fold could be mistaken for the distinctive sukotyro horn may be a moot point, given the myriad ways in which animal traits can be perceived or, if you will, misperceived.

89. The websites of cryptozoolgists Karl Shuker and Dale Drinnon address the sukotyro. See, respectively, *shukernature* (blog), accessed November 28, 2019, http://karlshuker.blogspot.com/2012/12/the-megalopedus-sukotyro-and-very.html; and *Frontiers of Zoology* (blog), accessed November 28, 2019, http://frontiersofzoology.blogspot.com/2013/07/tusked-megalopedus-and-sukotyro.html.

90. William Bell, "Description of the Double Horned Rhinoceros of Sumatra, by Mr. William Bell, Surgeon in the Service of the East India Company, at Bencoolen, communicated by Sir Joseph Banks, Bart. P. R. S.," *Philosophical Transactions* 83 (1793): 3–6.

91. Ronald Nowak, ed., *Walker's Mammals of the World*, 6th ed. (Baltimore: Johns Hopkins University Press, 1999), p. 1031.

92. Ibid., p. 1030.

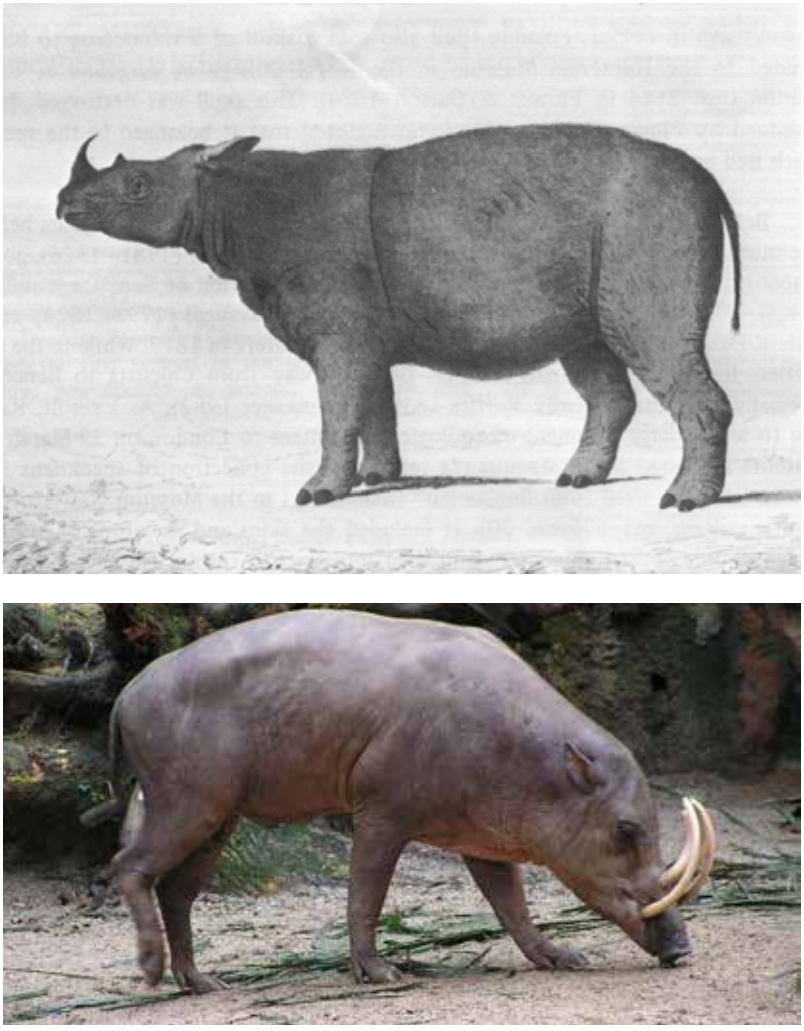

Figure 12. The Sumatran rhinoceros as depicted by William Bell[93] in 1793 and in recent captivity.

However the skinfold was perceived, it is certainly possible that Nieuhof either spotted a Sumatran rhino or had one described to him during his voyage and reported it as a sukotyro. Hairy, rather short, and solitary, the Sumatran rhino, which may have been ob-

93. Bell, "Description of the Double Horned Rhinoceros" (above n. 94), p. 6.

served grazing in the lowlands,[94] certainly had ox-like characteristics, which could easily have been distorted, particularly when reported second-hand. The fact is that we will never know if Nieuhof saw *anything* or whether he even *heard* of a creature that might be reckoned a sukotyro. Nor can we know if—as wishful cryptozoologists might suggest—something like a sukotyro existed and just happened to be—when Nieuhof encountered it—a viable creature on the very brink of extinction.

Those questions, however provocative or even entertaining, are far less intriguing than the survival and the subsequent demise of both the image and the idea of the sukotyro. For an animal of which we have no physical remains, the sukotyro had a remarkably long life in the annals of legitimate zoology. Its image was clearly compelling and in many texts with limited illustrations, a plate or etching of a sukotyro surely took the place of a more conventional creature. The sukotyro filled a spot between desire and plausibility in the exciting zoological taxonomies that emerged in the heady days of exploration and discovery that characterized what we call the Enlightenment. Now, of course, contemporary evidentiary standards have—quite appropriately—erased the sukotyro from the many textbooks and encyclopedias where it once roamed freely and without constraint.

I write "appropriately," drawing on the rigid—evidence-based—strictures of taxonomy and zoology, but in the realm of animal studies, the sukotyro deserves a second life as a reminder of the liminal space that resides in the space carved out by perception, belief, representation, and description. No animal, much less any representation of it, is static; the animal depicted in Paul du Chaillu's book for children, *Stories of the Gorilla Country: Narrated for Young People*,[95] is unmistakably a gorilla (*Gorilla gorilla*), but the fist-waving creature (fig. 13) bears very little resemblance to our current images of gorillas, or to our current ideas about their behavior, or their posture, or their role in the ecosystem, or the way most contemporary Westerners regard them.[96] Nor would this "construction" suit us in any way, with respect to the attitudes we typically want to cultivate between

94. Walker notes that the Sumatran rhino may even be found grazing on cultivated crops; *Walker's Mammals* (above, n. 95), p. 1031.

95. Paul Du Chaillu, *Stories of the Gorilla Country. Narrated for Young People* (New York: Harper & Brothers, 1874).

96. For more on the "discovery" of the gorilla and Paul Du Chaillu's role in bringing specimens back to Europe, see Monte Reel, *Between Man and Beast: A Tale of Exploration and Evolution* (New York: Doubleday, 2013).

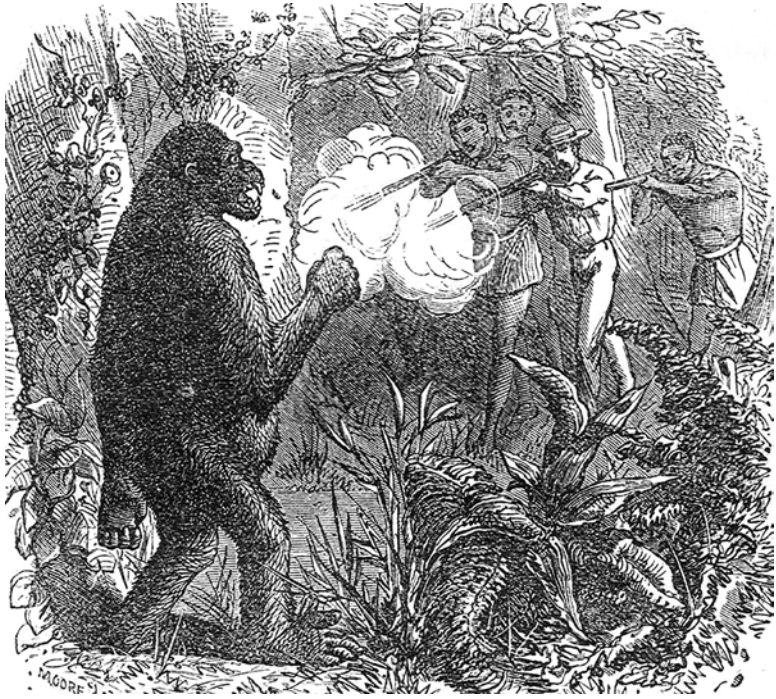

Figure 13. "Meeting the Gorilla" in Paul du Chaillus's *Stories of the Gorilla Country*.[1]

1. Du Chaillu, *Stories of the Gorilla Country* (above, n. 99), p. 271.

child and the living world, which is here "naturally" adversarial as opposed to "naturally" sympathetic.

Readers will, I hope, forgive what may seem like platitudes about the gorilla, and perhaps even forgive the use of an image so strikingly egregious in terms of acceptable images. But "egregious" must be understood comprehensively when it comes to animal images, which may also be "egregiously" cute.[97] All of these representations, whether separated by time or subject or geography, are part of a process that Svetlana Alpers calls "picturing,"[98] which is the ongoing practice of depicting an object, a person, a thing, or an animal within the conventions and constraints of contemporary ideologies.

Interestingly enough, the image of the sukotyro was never reimagined over time. Almost all images of the sukotyro can be laid one upon the other as near exact traces of Nieuhof's original depiction.

97. In fact, a recent Google search for "cute gorilla" results in over 24,000,000 hits.

98. Svetlana Alpers, *The Art of Describing* (Chicago: University of Chicago Press, 1984), p. 26.

Nor were there, aside from color tinting, any major modifications made to the original. In a sense, one can say simultaneously that the image was stalwart and durable (like the sukotyro), or that the image failed to adapt with time and circumstance (also like the sukotyro), and so both image and animal were doomed to extinction. Without new images or observations, there could be no ongoing depictions for the sukotyro, as there were for the gorilla, the beaver, the rhino, the elephant, and even the babirusa. Nevertheless, caught in its moment of time, the sukotyro obviously captured much about what people wanted to see in the natural world. The resilience of the image from its originary moment in Nieuhof's remarkable *Voyages and Travels* in the late seventeenth century to passing references in the mid-nineteenth century is as useful a reminder of the power of representation as any other natural image and ought not to be forgotten in the annals of zoology.

As an anecdotal creature, the sukotyro may not belong to "real" science—at least in Michael Shermer's formulation—but as I have tried to suggest, it has everything to do with the making of science and scientific culture. It is probably worth stating that the Sukotyro is not about "misinformation," a current theme in politics and digital discourse. Misinformation, an enormous topic in its own right, might be construed as "pretend facts" or "fake" facts created either innocuously because of simpleminded errors or produced with malicious intent, in order to misdirect and misinform readers. Our current understanding of animals is, we tend to believe, more informed than that of our predecessors, who did not have access to the kind of streaming knowledge, from unbounded sources, that feed our understanding of the natural world. But as W. J. T. Mitchell[99] observed over twenty years ago, cultural animal icons, like the dinosaur, have a life of their own, notwithstanding new scientific discoveries. And even when they do change, conventional beliefs persist. *Jurassic Park*'s CGI tyrannosaurs continue to roar triumphantly, even when current evidence suggests that they were more likely to "coo."[100] What is more, our nostalgia for animals, often evinced in ambitious "rewilding" proposals—to bring back, say, the woolly rhinoceros—is

99. W. J. T. Mitchell, *The Last Dinosaur Book: The Life and Times of a Cultural Icon* (Chicago: University of Chicago Press, 1998).

100. A recent article by T. Riede et al., "Coos, Booms, and Hoots: The Evolution of Closed-Mouth Vocal Behavior in Birds," *Evolution* 70:8 (2016): 1734–1746, draws a strong analogy between the vocalizations of birds and dinosaurs. Both common sense and behavioral biology also suggest that the triumphant bellowing that is typically depicted when a *T. rex* overcomes its prey is counterintuitive for a creature that has just killed a meal for its own consumption, and not to share.

about an imagined existence of a creature rather than any substantive understanding of what these animals were actually like.[101] One of the things we learn from the sukotyro, if nothing else, is that the extinction of an animal that we know existed strikingly resembles the extinction of a nonexistent creature. And so, my own effort—in this essay—to perpetuate a cultural-cryptozoological phenomenon is a rewilding of its own kind; it is an effort to revive and recombine culture and science to illuminate animals past, present, and possible.

The longevity of the sukotyro offers ample warning about the persistence of unsubstantiated ideas in popular culture, in the absence of factual evidence. In the final analysis, we live in a world of representation, and ideas or images never exist in a vacuum, and thus always require our close and very careful attention. It is for that reason that the sukotyro meant something over its lifetime of nonexistence, and continues to "mean" even now. Like it or not, the sukotyro—such as it is—remains firmly lodged in the annals of science no less than Dürer's fantastic (yet oddly archetypical) rhinoceros. With that in mind, we must look at the sukotyro itself as a natural paradox: a nonexistent animal that cannot go extinct.

101. See environmental author George Monbiot's essay "Let's Make Britain Wild Again and Find Ourselves in Nature," *Guardian*, July 16, 2015, https://www.theguardian.com/commentisfree/2015/jul/16/britain-wild-nature-rewilding-ecosystems-heal-lives. Monbiot's thinking about nature, notwithstanding visions "restored" mammoths and wooly rhinoceros roaming the moors of England, is nonetheless important to the ongoing dialogue about preservation of species and the reclamation of highly stressed environments. To be sure, Monbiot offers a more modest list of animals to be rewilded in an accompanying article titled "15 Species That Should Be Brought Back to Rewild Britain" (*Guardian*, July 15, 2015, https://www.theguardian.com/environment/2015/jul/15/rewilding-britain-launches-with-the-aim-of-restoring-uks-lost-wildlife-and-habitats.) Monbiot's fifteen candidates, which includes the pine marten, the beaver, the lynx, and the eagle owl, may seem sensible to some, but the actual "rewilding" of these creatures—absent from the English environment for centuries—may be no less problematic as reviving the long extinct mammoth and wooly rhinoceros.

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